

65 PUBLIC UTILITY COMMISSION

625 EMERGENCY SERVICES COMMUNICATIONS BUREAU

Chapter 1: STANDARDS FOR ESTABLISHING A STATEWIDE ENHANCED 9-1-1 SYSTEM

SUMMARY: This chapter outlines the standards, specifications, and procedures to establish a statewide Enhanced 9-1-1 system pursuant to 25 MRSA § 2926.

§1. Definitions.

1. **Automatic Location Identification (ALI):** A system capability that enables an automatic display of information defining the geographical location (e.g., a street address) of the telephone used to place a 9-1-1 call.
2. **Automatic Number Identification (ANI):** A system capability that enables the automatic display of the seven-digit number of the telephone access line used to place a 9-1-1 call.
3. **Central Office (or End Office):** A facility in which customer lines are joined to switching equipment that routes local and long distance voice and data transmissions to other customer lines, or to trunks connected to other switches.
4. **Computer-linked Communication Center (CLCC):** A facility equipped, at an agency's own expense, with ALI/ANI display and print out capability. It receives a 9-1-1 call only when it is transferred from a PSAP and dispatches emergency services to the caller.
5. **Continuous Logging Recorder:** A device that records both sides of a conversation on each incoming 9-1-1 call and contemporaneously documents the year, date and time of each recorded event.
6. **Emergency Services Communication Bureau (Bureau):** The state agency authorized by the Maine Legislature to develop, establish, and manage the statewide Enhanced 9-1-1 system in Maine.
7. **Emergency Service Zone (ESZ):** A defined geographical territory consisting of a specific combination of law enforcement, fire, and emergency medical service coverage areas.

8. **Enhanced 9-1-1 (E-9-1-1) Service:** An emergency telecommunications service that automatically displays a caller's location and telephone number on a screen at a call answering center. This service uses the caller's location, not telephone exchange, to direct a call to the appropriate call answering center.
9. **Forced Disconnect:** A telephone feature that allows a PSAP to break or disconnect a telephone connection and avoid caller jamming of 9-1-1 lines.
10. **Foreign Exchange:** A service that provides local service from a central office that is outside the customer's local calling area.
11. **Host-Remote:** The relationship between conventional central office switching equipment and a Remote Switching Unit (RSU) in another facility which usually has limited capability and may not be able to function independently if connecting links from the host office are interrupted.
12. **Host Switch:** A high-capacity switching system that provides, via interoffice trunks, control functions and services to one or more distant, lower capacity switches (remote switches).
13. **Instant Playback Recorder:** A device that allows for the instant playback of the audio portion of the last 9-1-1 call.
14. **Master Street Address Guide (MSAG):** The computerized geographical file that consists of all roads and address ranges within the E-9-1-1 system area. This database is the key to the selective routing capability of E-9-1-1 calls and requires constant updating after the initial file is established.
15. **Public Safety Answering Point (PSAP):** A facility equipped to receive ANI/ALI and assigned the responsibility of initially receiving 9-1-1 calls and, as appropriate, directly dispatching emergency response services or transferring the calls to other public or private safety agencies for dispatch.
16. **Remote Switch:** A switching system located at a distance from its host switch. If the Host-Remote connection is severed, the remote switch can only switch calls between customer lines directly connected to it, and cannot provide functions and services that are delivered from the host switch.
17. **Service Provider(s):** The vendor or vendors selected by the Emergency Services Communication Bureau to provide the network, routing capabilities, databases, and equipment necessary to operate a statewide E-9-1-1 system.

18. **Tandem Switch:** A switching system that routes voice and data transmissions between central offices and between central offices and interexchange carriers' points of presence (POPs). No customer lines, switched or private (dedicated), are connected to a tandem switch, only trunks from other central offices and POPs.
19. **TTY/TDD:** A telecommunications device for the deaf that permits typed telephone conversations with or between deaf, hard of hearing, or speech impaired people.
20. **Uninterruptible Power Supply (UPS):** A device designed to provide a continuing source of power without regard to the interruption or loss of commercial power.
21. **Public Safety Dispatcher:** A person who works in a PSAP or other public safety communications or dispatch center and is trained to receive, evaluate and dispatch emergency calls.
22. **Full-time Public Safety Dispatcher:** A person employed as a public safety dispatcher with the reasonable expectation of working at least 1,040 hours in any one calendar or fiscal year.

§2. Network design specifications.

1. Central Office.

- A. **Modification of central offices.** E-9-1-1 modifications in central offices should be coordinated with general central office upgrades where practical and where such coordination does not significantly effect E-9-1-1 system implementation or operation. In designing and scheduling central office upgrades, telephone companies shall: (1) consider the goal of performance and reliability of the E-9-1-1 system of utmost importance, (2) take E-9-1-1 growth in Maine into consideration, and (3) reduce as much as possible the cost of providing voice and data switching and transmission services to the E-9-1-1 system.
- B. **Network upgrade schedules.** Telephone companies shall provide notice to the Bureau of central office upgrades that could affect E-9-1-1 service or performance.
- C. **Host-Remote central offices.** In host-remote central office arrangements, telephone companies shall, where feasible, provide emergency re-route solutions for any potential central office failure.

- D. **9-1-1 digit recognition.** Provisions in the network shall ensure that only calls in which all three digits (9-1-1) are dialed shall enter the 9-1-1 system. The network shall also prevent large dialing sequences which contain the subsequence 9-1-1 from entering the 9-1-1 system.
- E. **Foreign exchange service.** Telephone companies shall allow access to 9-1-1 from intrastate foreign exchanges. The network shall route the 9-1-1 call to the PSAP serving the caller's location.
- F. **Forced disconnect.** The E-9-1-1 system shall be engineered to allow for forced disconnect of 9-1-1 calls placed to all PSAPs to prevent blockage of 9-1-1 lines.
- G. **Coin-free dialing.** Each telephone company owner of a coin telephone in Maine shall convert all their coin or coinless telephones to dial-tone-first capability to allow 9-1-1 calls to be made without first inserting a coin or paying any other charge.

2. **Network Trunking.**

- A. **Grade of service.** The number of incoming E-9-1-1 trunk lines to each PSAP shall be based upon a grade of service of P.01. A P.01 grade of service means that not more than one 9-1-1 call in 100 will receive a busy signal during the average busiest hour. The size of the served population and the 9-1-1 call volumes experienced by a PSAP will determine actual trunking levels. The Service Provider shall submit network performance reports to the Bureau annually, based upon Bureau requirements.
- B. **Minimum trunking requirements.** There shall be a minimum of two dedicated incoming 9-1-1 trunks at each PSAP. The Service Provider, in cooperation with the Bureau and PSAPs, shall conduct a telephone traffic study of all existing basic 9-1-1 and seven-digit emergency numbers to assist in determining the proper amount of E-9-1-1 trunks. The Service Provider shall also be responsible for designing the network of the E-9-1-1 system to ensure that the network is adequately trunked to achieve P.01 grade of service on an incoming and transfer basis.
- C. **System routing diversification.** The Service Provider shall ensure that the routing of 9-1-1 calls through the network and ALI information through the data link network shall be diversified as much as possible.

- D. **Default and alternate routing.** The Service Provider, in cooperation with the Bureau, shall design the E-9-1-1 network to allow for default and alternate routing capabilities.

3. **Ensuring system reliability.**

- A. **Network protection.** To prevent the widespread loss of E-9-1-1 service, the Service Provider shall work towards eliminating any single point of failure that could compromise the reliability of the network. The Service Provider shall endeavor to maintain E-9-1-1 network integrity, minimize the probability of system degradation and failure, and minimize the negative effects of degradation or failure should it occur.
- B. **Contingency re-route.** The Service Provider, in conjunction with the Bureau, shall work towards ensuring network integrity to minimize the probability of E-9-1-1 system failure and providing options for restoring E-9-1-1 service in the event of interruption.

§3. **Minimum Public Safety Answering Point requirements.**

1. **Call answering and call transfer performance standards.**

- A. **Call answering.** Ninety percent of all 9-1-1 calls received by a PSAP shall be answered in 10 seconds or less.
- B. **Call transfer.** Ninety percent of all transfers from a PSAP to dispatching centers shall be initiated within 15 seconds from receipt of call.

2. **Administration.**

- A. **PSAP Coordinator.** Each PSAP shall designate an individual to serve as its PSAP Coordinator for all issues involving E-9-1-1 service and the Bureau.
- B. **Call handling procedures.** Each PSAP shall work with the public safety providers served by the PSAP to establish call handling procedures. Each PSAP shall review these procedures regularly with the Bureau.
- C. **Back-up arrangements.** Each PSAP shall have written backup arrangements in place, for both its primary and secondary backup PSAP sites, in the event that its dispatch capability is compromised and its calls must be rerouted and handled by either one of these sites.

- D. 24-hour operation and staffing.** Each PSAP shall operate and have call answering staff on duty 24 hours per day, seven days per week.
- E. Discrepancies.** Each PSAP shall constantly compare the ALI information from the database with information supplied by the caller to identify discrepancies. Errors shall be documented and forwarded to the Bureau for correction in a manner prescribed by the Bureau.
- F. Seven-digit telephone numbers.** Each PSAP shall maintain, at its own expense, at least one unpublished telephone number to allow for administrative purposes associated with the PSAP. Each PSAP shall also maintain, at Bureau expense, one seven-digit emergency telephone number to be published in the white pages of the telephone book as a backup to dialing 9-1-1. This number will also be used for the receipt of incoming emergency calls transferred to the PSAP by other PSAPs for certain alternate and default routing arrangements.
- G. PSAP security.** All access to a PSAP shall be secured to prevent entry by the public or unauthorized persons.
- H. Data security.**

 - (1) Caller information provided during a 9-1-1 call shall be used only for the purpose of processing an emergency call and subject to existing statutory limitations on such information.
 - (2) The Bureau shall establish personnel security clearance standards for PSAPs to protect the confidentiality of ANI and ALI data. These criteria may include:

 - (a) A state and national III record check by fingerprint identification.
 - (b) A review of state and national arrest and fugitive files.
 - (c) Disqualification for PSAP employment if any criminal record, employment history, or character issue so warrants.
 - (3) The physical layout of a PSAP shall insure that no unauthorized individual is able to view ANI/ALI information.

- I. **Records retention.** All voice and TDD recordings of incoming 9-1-1 calls shall be retained for a minimum of 30 days. It is recommended that such materials be retained for a minimum of 60 days.

J. **Public comment process.** Each PSAP shall develop a written procedure for receiving comments and complaints from the public and from public and private safety agencies served by the PSAP. Each PASP's public comment and complaint documents shall include the name, title and contact information for the person designated by the PASP to receive comments and complaints pursuant to this subsection..

K. **Quality Assurance (QA) Program.** Each PSAP shall establish a quality assurance program which shall include a process for auditing the performance of each of its public safety dispatchers. The Bureau shall assist each PASP develop its Quality Assurance Program, particularly through training on the development of such plans.

~~3. **Training.** Within 90 days of assignment, all call answering personnel shall be trained at Bureau expense in the following areas:~~

~~— A. Training on the proper operation of Bureau provided PSAP equipment.~~

~~— B. Training on the proper handling of incoming 9-1-1 emergency calls.~~

3. Reports and Records.

A. **Annual Report.** Within 30 days of the close of each calendar year, the highest elected official of each political subdivision and the head of each state department and agency employing public safety dispatchers shall provide the Bureau with a report containing a list of the names and dates of employment of all public safety dispatchers.

— B. **Report on New Public Safety Dispatchers.** Whenever a public safety dispatcher is newly appointed, the official or department or agency head shall send notice of appointment within 30 days to the Bureau on a form provided for that purpose. The form is deemed an application for admission to the training program or for other certification as required by this chapter.

C. **Report of Termination of Public Safety Dispatchers.** Whenever the employment of a public safety dispatcher is terminated, the official or department or agency head shall send notice of the termination within 30 days to the Bureau on a form provided for that purpose.

D. Reports of Convictions or Misconduct by Public Safety

Dispatchers. In the event that a public safety dispatcher is convicted of a crime or violation or engages in conduct that could result in suspension or revocation of the dispatcher's certificate pursuant to this chapter, the official department or agency head shall immediately notify the Director of the Bureau with the name of the dispatcher and a brief description of the conviction or conduct.

F. Maintenance of Training Records.

The official or department or agency head shall maintain records regarding the basic and in-service training of public safety dispatchers as provided in this chapter. Such training records shall document at a minimum, the subject taught, duration of training, instructor(s), test scores as applicable, and signed attendance rosters, and be made available for review as requested by the Bureau.

3-A. Training.

A. Basic Public Safety Dispatcher Training; Minimum Mandatory

Staff Training Requirements. All full-time public safety dispatchers must successfully complete, within the first 12 months of initial employment, the basic training course at the Maine Criminal Justice Academy approved by the Bureau. All full-time public safety dispatchers must satisfactorily maintain the basic certification by completing any recertification requirements as may be prescribed by the Bureau. The Bureau, for good cause, may extend the 12-month period for not more than 180 days and may waive the basic training requirement when an equivalent course has been successfully completed. This section does not apply to any person employed as a full-time public safety dispatch personnel on or before 1 January, 2008.

B. Training and Use of E9-1-1 Call Answering Technology.

All persons, full or part-time, who are employed as a public safety dispatcher at a PSAP, must within 90 days of assignment, complete a Bureau approved course on the proper operation of Bureau-provided PSAP equipment and on proper call handling and processing of 9-1-1 emergency calls. Such public safety dispatchers may be assigned call taking responsibilities prior to the completion of the approved course when working under the immediate supervision of another certified dispatcher.

C. Courses.

The Bureau shall provide tuition-free training courses, the successful completion of which meets the basic training requirements. The Bureau shall include in the basic public safety dispatcher training program a block of instruction aimed specifically at the requirements of the Americans with Disabilities Act (ADA) for direct and equal access to 9-1-1 services for persons with disabilities who communicate via TTY/TDD, including VCO and HCO communication hybrids.

D. Continuing Education Public Safety Dispatcher Training as Required. As a condition to the continued employment each public safety dispatcher, must successfully complete continuing education training as prescribed by the Bureau with the advice and comment of the E9-1-1 Council. The minimum continuing education requirements for all public safety dispatchers shall be at least 12 hours of approved education each year. The Bureau, with the advice and comment of the E9-1-1 Council, may establish requirements for specific training topics and hours as a portion of the annual requirements and must include annual refresher training for dispatchers in the recognition and processing of TTY/TDD calls.

E. Credit for Courses. The Bureau may grant training credits to be applied to recertification training requirements for courses completed at accredited colleges and universities, through professional journals, audio and visual media, teleconferencing and the Internet. The Bureau shall establish a process for the approval of training courses that may be applied toward annual certification training requirements, coordinate delivery of training with postsecondary schools and other institutions and public safety emergency communications agencies, and administer training programs.

3-B. Certification

A. Granting of Certification. The Bureau shall certify each public safety dispatcher who meets the core curriculum training requirements. Such certification shall be granted for two years from date of issuance, upon which time the person must apply for recertification within 90 days prior to expiration to retain certification. Courses and certifications attained out of state may be evaluated by the Bureau on a case-by-case basis, comparing them with Bureau-approved courses for possible partial or full credit.

B. Recertification The Bureau, with the advice and comment of the E9-1-1 Council, shall establish requirements for the recertification of all public safety dispatchers, to include the timeframe for recertification, the completion of specified in-service training hours, and the application form.

C. Revocation of Certificate for Conviction or Misconduct by a Public Safety Dispatcher. In the event that a public safety dispatcher is convicted of a crime or misdemeanor or engages in unlawful conduct, the Bureau Director, with advice and comment by the E9-1-1 Council, may revoke or suspend the certification of a public safety dispatcher for cause, after affording the person a hearing before the E9-1-1 Council.

D. Additional certificates. The Bureau may offer additional certificates to be awarded for completion of additional education, experience and certified Bureau-approved training that includes but is not limited to executive, mid-management, instructor and communications specialists.

E. Falsification of Application. Knowing or willful falsification of an application for employment or application for certification or recertification as a public safety dispatcher shall be justification for denying admission to training and/or continued certification as a public safety dispatcher.

4. Equipment.

A. Telephone equipment. Each PSAP shall have telephone equipment that ensures system and functional compatibility with the network. All telephone equipment shall have the following features:

- (1) **Barge-in capability:** To allow a PSAP operator to enter a call without the original call taker having to do anything.
- (2) **Monitoring capability:** To provide for the monitoring of incoming emergency calls for supervisory and training purposes.

B. Continuous logging equipment. Each PSAP shall provide and run continuously a logging recorder that will record both sides of a conversation on each incoming 9-1-1 call, and contemporaneously document the year, date and time of each recorded event.

C. Instant playback recorders. Each PSAP shall provide and run an instant playback voice recorder capable of recording the voice conversations for each answering position.

D. Equipment Tests. PSAPs shall ensure that all call answering and dispatch equipment is maintained in operable working order. All PSAPs shall conduct periodic tests of all call answering workstations that include spare or backup workstations, exercising all critical functions and features, and TTY/TDD call reception and transmission. Equipment checks shall be conducted on a routine basis, but no less than monthly. PSAPs shall complete and maintain records of such tests and make them available for review by the Bureau. The Bureau will assist with the development of equipment test procedures and forms.

E. TTY/TDD Test Calls. PSAPs shall conduct internal TTY/TDD test calls in which random TTY test calls are processed at each call answering position. Test calls shall include two types of calls (1) silent, open line calls, and (2) calls that are introduced by

transmitting TTY/TDD tones. PSAPs shall require each dispatcher to conduct TTY/TDD test calls, both sending and receiving, on a routine basis, but no less than every six months. PSAPs shall complete and maintain records of such test calls that identify the dispatcher, date/time of call, call taking position, silent or transmitted tone, and whether the call met standard operating procedures. Such test records shall be made available for review by the Bureau. The Bureau will assist with the development of TTY/TDD test call procedures and forms.
